ICR-100
BC-100

Specifications

(ICR-100)

Circuit:	1 IC, 3 Transistor Superheterodyne
Frequency Coverage:	530~1,605 kc (566~187 m)
Intermediate Frequency:	455 kc
Antenna System:	Built-in Ferrite Bar Antenna
Maximum Sensitivity: (at 10 mW output)	560μV/m
Selectivity:	20 dB at 10 kc off resonance, at 1,400 kc.
Output Power:	50 mW (undistorted) 70 mW (maximum)
Current Drain:	9 mA at zero signal, 40 mA at 50 mW output
Power Source:	Nickel Cadmium Battery 2.5V in total. Rechargeable by using SONY Charger BC-100 for House Current.
Speaker:	40×28 mm PM dynamic 8Ω
Dimensions:	1-7/32 (H)×2-9/32 (W)×23/32″ (D) (31×58×18 mm)
Weight:	3.2 ozs. (90 gs.)

(BC-100)

Input:	AC 100~125 V 50/60 c/s
Output:	DC 5 mA Maximum
Dimensions:	2 (H)×3-11/16 (W)×1-1/8″ (D) (50×94×28 mm)
Weight:	75 gs.

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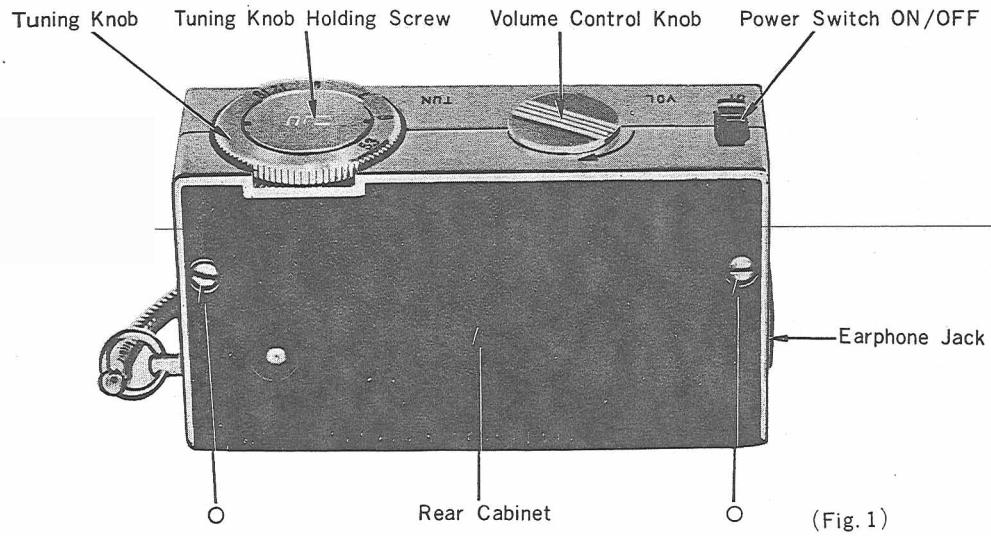
Removal of Back Cabinet

(1) Remove the Tuning Knob Holding Screw shown in Fig. 1.
(2) Remove the Tuning Knob shown in Fig. 1.
(3) Remove the Tuning Capacitor Holding Screw.
(4) Remove the two Rear Cabinet Holding Screws marked with ○ shown in Fig. 1.

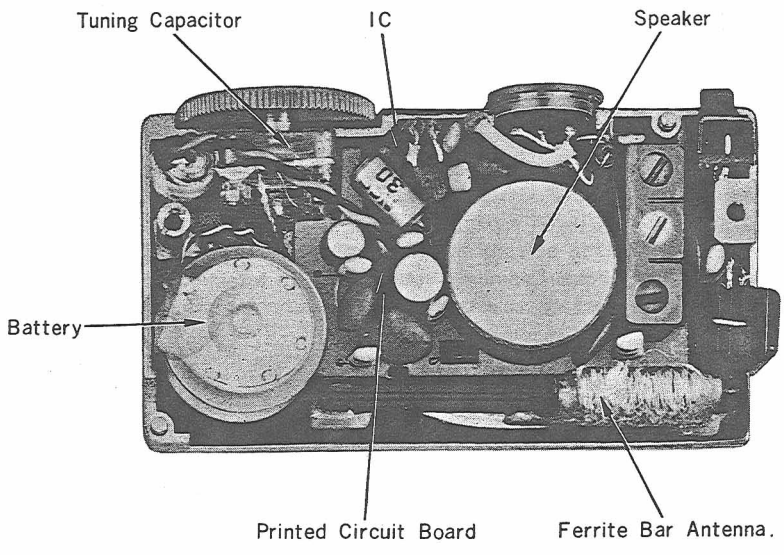
Removal of Printed Circuit Board

(1) Remove the Circuit Board.
(2) Take out the Circuit Board from the Cabinet gently taking care not to cut the Lead.



(Fig. 1)

Interior View

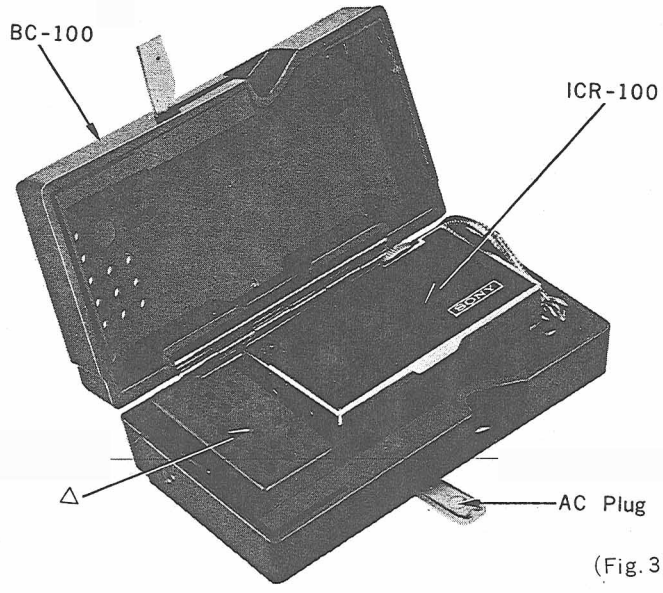


(Fig. 2)

Removal of Neon Lamp and Resistors (BC-100)

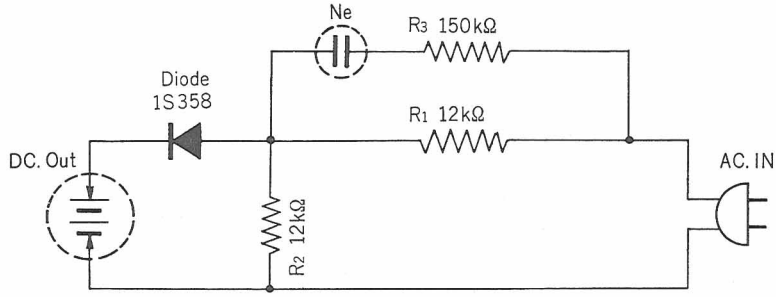
(1) Remove the Cover marked with △ shown in Fig. 3.

(2) Unsolder the Neon Lamp, Diode and Resistors.

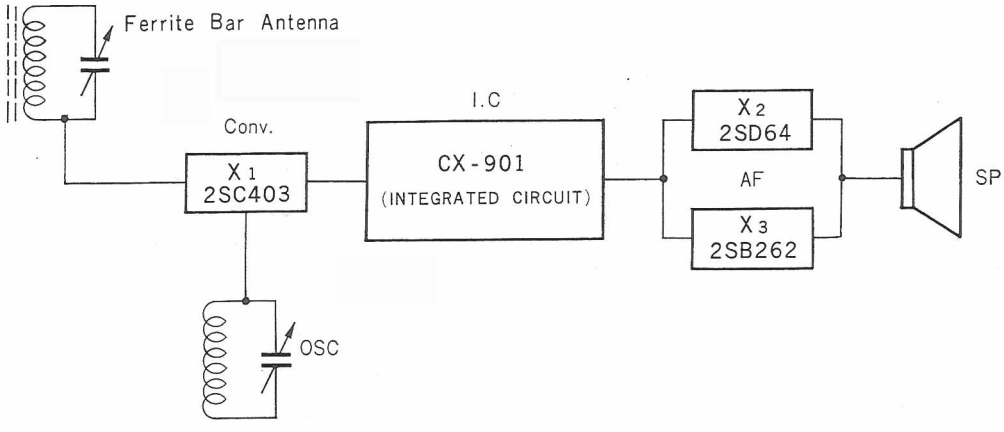


(Fig. 3)

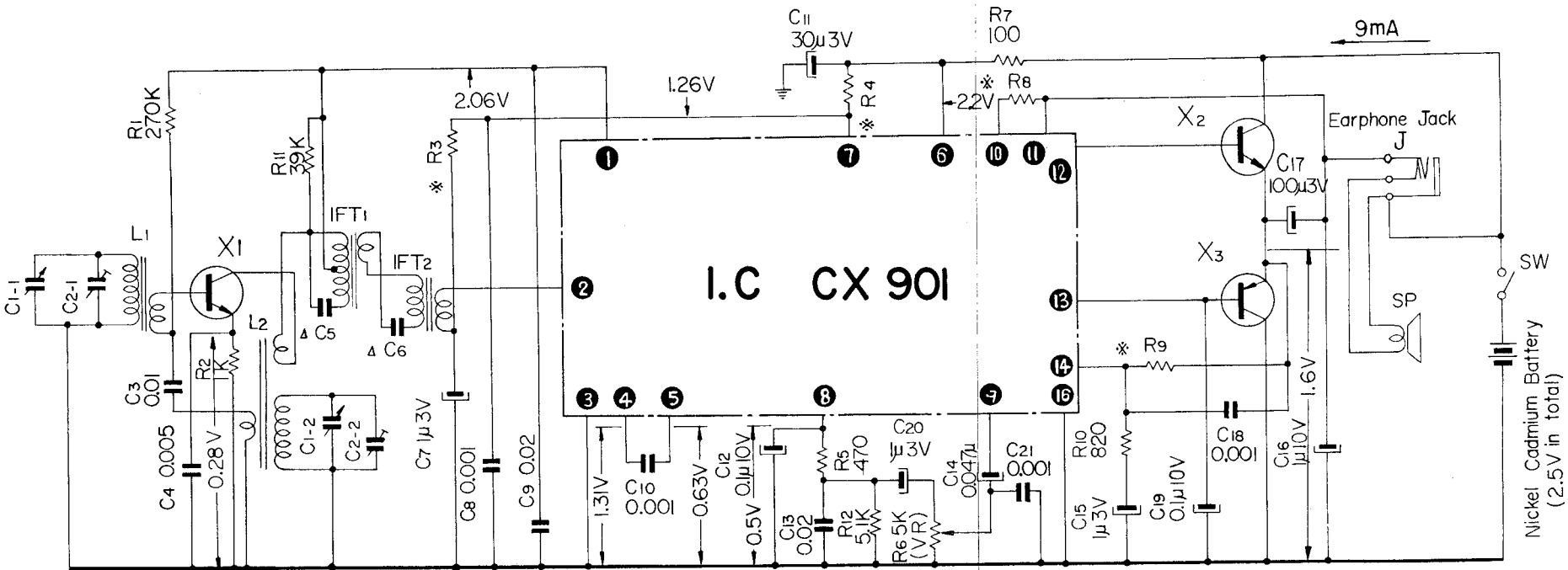
BC-100 Circuit Schematic



ICR-100 Block Diagram



Circuit Schematic



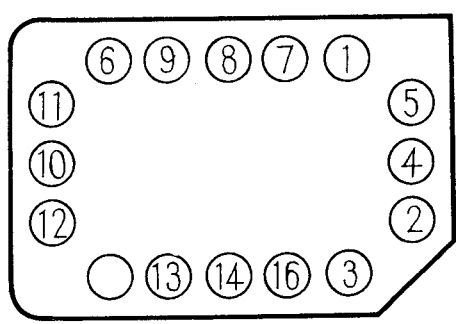
X1 2SC403 ※ To be Adjusted △ Built in IFT

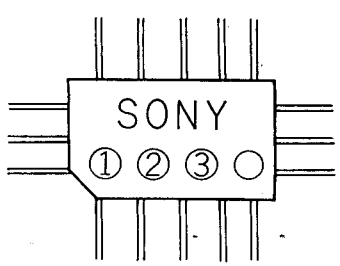
X2 2SD64 X3 2SB262

Color Code of IC

IC Mark	Resistor No.	Brown	Red	Orange	Yellow	Green	Blue	Purple	Gray	White	Black	Gold	Silver
①	R_4 (kΩ)	6.2	6.8	7.5	8.2	9.1	10	11	12	13	15		
②	R_8 (kΩ)	4.7	5.6	6.8	8.2	10	12	15	18	22	27	33	39
③	R_9 (kΩ)	91	100	110	120	130	150	160	180	200	220	240	270

IC
-Pin Side-

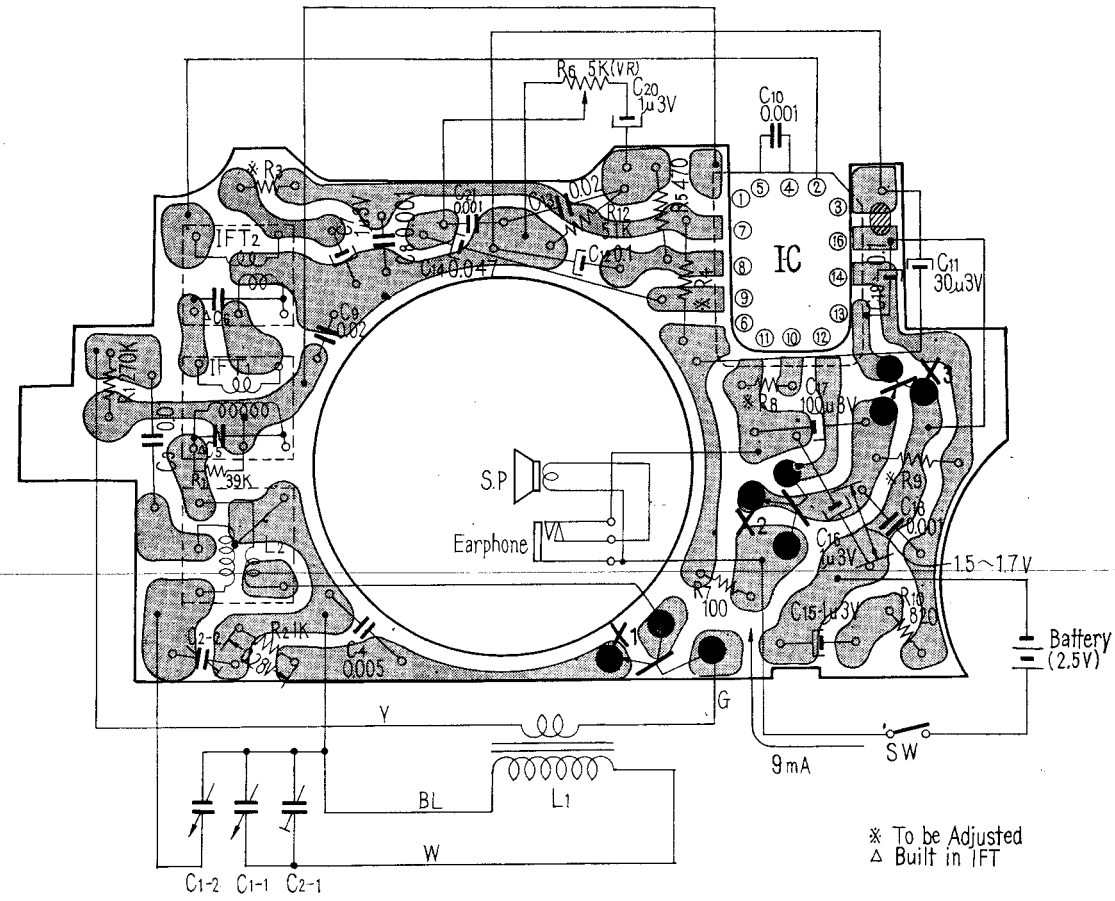




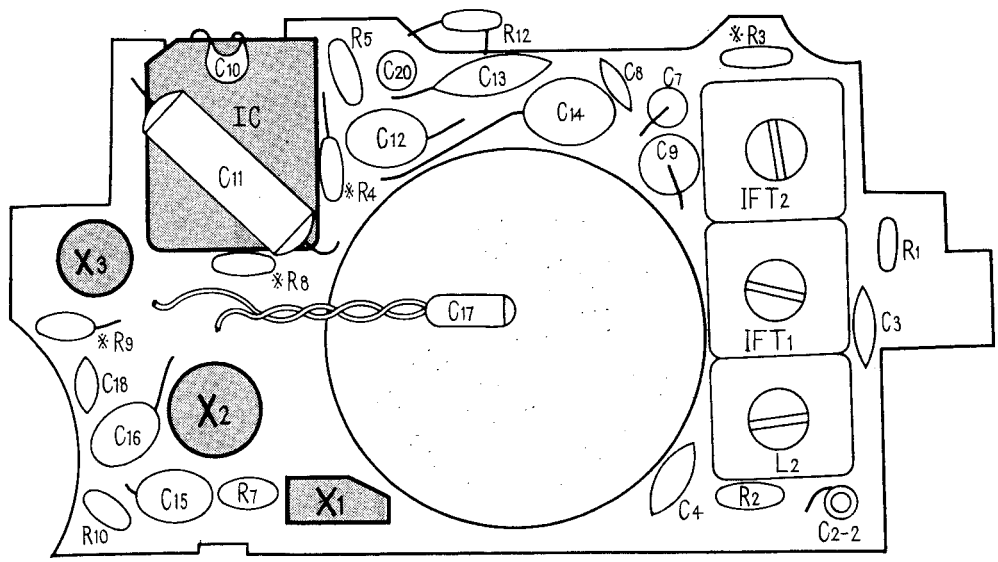
As for R_4, R_8 and R_9 of Adjustable Resistors, select the ones with the following values according to the respective color codes on the IC.

Mounting Diagram

— Printed Side —



— Parts Side —



R11, C19 Mounted on the Printed side

Frequency Coverage and Tracking Adjustment

Adj. Item	SSG (Standard) Signal Generator) Coupling	SSG Freq.	Receiver Dial Setting	Connect VTVM	Adjust	Remarks
Frequency Coverage	Loop Antenna	520 Kc (1000 c/s 30% AM Mod)	Fully Left	Across 8Ω Load Resistor	OSC Coil (L_2)	Adjust for maximum deflection.
		1,680 Kc (〃)	Fully Right		OSC Trimmer (C_{2-2})	Volume Control : MAX Power Supply : DC. 2.5V
Tracking	—ditto—	620 Kc (〃)	Tune to 620Kc signal	—ditto—	ANT Coil (L_1)	—ditto—
		1,400 Kc (〃)	Tune to 1,400Kc signal		ANT Trimmer (C_{2-1})	

Electrical Parts List

(**ICR-100**)

Part No.	Symbol	Description	Part No.	Symbol	Description
1-401-298-11	L_1	Coil, Ferrite Bar Antenna			**Capacitor**
1-405-296-11	L_2	〃 OSC	1-151-151-11	$C_{1-1\sim2}$	Tuning Capacitor, 2 gang
1-403-127-11	IFT_1	Transformer, IF (Primary)	1-141-036-12	C_{2-1}	Wired Trimmer Capacitor
-127-12	IFT_2	〃 (Secondary)	-036-12	C_{2-2}	〃
1-502-164-11	SP	Speaker	1-101-072-14	C_3	0.01μF Ceramic
1-507-160-11	J	Jack, Earphone	-140-14	C_4	0.005μF 〃
1-514-278-11	SW	Switch, Power ON-OFF		C_5	(Built-in IFT_1)
1-528-030-11	Batt	Battery, Nickel Cadmium 2.5V		C_6	(Built-in IFT_2)
			1-131-049-11	C_7	1μF 3V Tantal
	X_1	Transistor, 2SC403	1-101-125-15	C_8	0.001μF Ceramic
	X_2	〃 2SD64	-073-11	C_9	0.02μF 〃
	X_3	〃 2SB262	-125-15	C_{10}	0.001μF 〃
	I. C.	Integrated Circuit, CX-901	1-131-051-11	C_{11}	30μF 3V Tantal
			1-127-019-11	C_{12}	0.1μF 10V Alox
		Resistor	1-101-073-14	C_{13}	0.02μF Ceramic
1-208-091-11	R_1	270KΩ 1/10W Composition	1-127-018-11	C_{14}	0.047μF Alox
-033-11	R_2	1KΩ 〃 〃	-053-11	C_{15}	1μF 3V 〃
-073-11	*R_3	47KΩ 〃 〃	-053-11	C_{16}	1μF 3V 〃
-056-11	*R_4	9.1KΩ 〃 〃	1-131-052-11	C_{17}	100μF 3V Tantal
-025-11	R_5	470Ω 〃 〃	1-101-125-15	C_{18}	0.001μF Ceramic
1-221-836-11	R_6	5KΩ Volume Control	1-127-019-11	C_{19}	0.1μF 10V Alox
1-208-009-11	R_7	100Ω 1/10W Composition	1-131-049-11	C_{20}	1μF 3V Tantal
-057-11	*R_8	10KΩ 〃 〃	1-101-125-15	C_{21}	0.001μF Ceramic
-085-11	*R_9	150KΩ 〃 〃			
-031-11	R_{10}	820Ω 〃 〃			
-071-11	R_{11}	39KΩ 〃 〃			
-050-11	R_{12}	5.1KΩ 〃 〃			

* To be adjusted

(**BC-100**)

Part No.	Symbol	Description	Part No.	Symbol	Description
7-197-358-0	D	Diode 1S358	1-209-176-21	R_1	12KΩ 1W Carbon
1-519-017-11	NE	Neon Lamp	1-242-699-11	R_2	12KΩ 1/4W 〃
			1-244-524-11	R_3	150KΩ 3/8W 〃

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